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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

TRAN, MONG-THUY THI

ART UNIT

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2617

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06/16/2010

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/583,947	Applicant(s) FODOR ET AL.	
	Examiner MONG-THUY TRAN	Art Unit 2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 April 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 - 11, and 13 - 21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 - 11, and 13 - 21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This Office Action is in response to the Applicant's communication filed on 06/01/2010. In virtue of this communication, claims 1 – 11 and 13 – 17 are amended, and claim 18 – 21 are added. Claims 1 – 11 and 13 - 21 are currently pending in the instant application.

Response to Arguments

2. Applicant's arguments with respect to claim 1, 14, and 17 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1, 2, 7 – 11, 13, 14, 17, and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chan et al. (hereafter Chan) ("Mobility Management Incorporating Fuzzy Logic for a Heterogeneous IP Environment", IEEE Communication Magazine, December 2001), in view of Radhika (EP 1,091,528 A2).

Regarding claim 1, Chan discloses a system allowing a user terminal in a network to simultaneously access a plurality of radio based access networks of diverse access technologies (see Fig. 1), the system comprising:

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a plurality of access selection adapters (ERs), each one being a network entity provided separate from the user terminal (i.e., TE), and each one associated with a respective radio access networks (i.e., satellite, UMTS, GPRS), and each access selection adapter structured for receiving access dependent information from its associated access network (see page 43, right column, lines 32 – 38; page 44, right column, lines 4 - 24; and Fig. 1).

Chan does not disclose the limitation mapping said radio access dependent information to access technology independent status information; and an access selector being a network entity provided separate from the user terminal, and structured to interact with each access selection adapter for selection of a radio access network based on an individual QoS profile representing an access technology independent information associated with each application and on said access technology independent status information.

However, Radhika discloses the gatekeeper 111 (i.e., ER) map the application/middleware layer QoS to the corresponding network/link layer QoS service, and the backend server (i.e., an access selector) that is communicating with the network/link layer QoS service (i.e., routers in the case of the IP network, switches in the case of ATM network) will use this mapped network/link layer QoS to determine the available QoS service within the network (see Radhika, [0018]). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the Chan's system in order to select an access network based on individual QoS profile so that regardless of whether the end user's terminals are

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connected to the same network or different networks types, as suggested by Radhika (see Radhika, abstract).

Regarding claims 2 and 7, Chan in view of Radhika disclose the access selection adapter is structured to implement a protocol (IPv6) spanning the access networks, the backbone network and the access selector, to enable interoperation between an application and an end terminal connected to the backbone network and to make the access selection adapter transparent to the application (see reject claim 1 and Radhika, Fig. 2 and 5).

Regarding claim 8, Chan in view of Radhika discloses the user terminal comprises a database containing configure data for the applications (see Chan, i.e., the T-IWU has to keep track of the availability of access segments, which is stored in a suitable database, see the right column in page 44).

Regarding claim 9, Chan in view of Radhika discloses the means to execute link independent QoS related software processes for access procedures (see Radhika, [0012]).

Regarding claim 10, Chan in view of Radhika discloses said QoS related software processes comprise a layer 2-link status (see Radhika, [0011]).

Regarding claim 11, Chan in view of Radhika discloses said QoS related software processes further comprises a CARD (i.e., an edge router) process for acquisition of candidate access routers (see Chan, Fig. 1).

Regarding claim 13, Chan in view of Radhika discloses the access selector is connected to the backbone network, and is connected to the access networks (see reject claim 1).

Regarding claims 14, 17, and 19, these claims are rejected for the same reason set forth above in system claim 1 because they have the same limitations.

5. Claims 3 – 6, 15 , 16, 18, 20, and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chan et al. (hereafter Chan) (“Mobility Management Incorporating Fuzzy Logic for a Heterogeneous IP Environment”, IEEE Communication Magazine, December 2001) in view of Radhika (EP 1,091,528 A2) as applied to claims 1, 14, and 17 above, and further in view of Persson et al. (hereinafter Persson) (Pub # US 2003/0208582 A1).

Regarding claim 3, Chan in view of Radhika do not disclose explicitly the access selection adapter comprises an access manager and a translator.

However, Persson discloses an access manager and a translator in a gateway (i.e., access selection adapter) (see Persson, elements 911 and 913 in Fig. 9 and

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[0053]). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the Chan's system in view of Radhika in order to include translation function in the access selection adapter so that establish or modify a UMTS bearer service, as suggested by Persson (see Persson, [0053]).

Regarding claims 4 and 5, Chan in view of Radhika and Persson disclose the radio access dependent information comprises delay and cost (see Radhika, [0009] and [0018]).

Regarding claim 6, Chan in view of Radhika and Persson disclose a QoS controller for receiving the QoS parameters from the translator and mapping the QoS parameters to the access technology independent status information (see Radhika, [0021]).

Regarding claim 15, Chan in view of Radhika do not disclose explicitly the radio access dependent information and the status information are signaled from the access selection adapter to the access selector at time intervals and when there is a change in any QoS parameters associated with the radio access network.

However, Persson discloses the QoS requirements vary from application to application. For example, an Internet telephony application requires voice signals to arrive within a tolerated delay variance (jitter); a video player requires a bandwidth guarantee to convey the images smoothly (bandwidth); and a real-time monitor requires

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a strictly assured delay of communication (delay). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the Chan's system in view of Radhika in order to show any change in QoS parameters associated with the radio access network so that applications need to cope with the heterogeneity of user interfaces to ensure their QoS, as suggested by Persson (see Persson, [0008]).

Regarding claim 16, Chan in view of Radhika and Persson disclose a change in the QoS parameter is signaled by a layer 2 trigger (see Radhika, [0011]).

Regarding claims 18, 20, and 21, Chan in view of Radhika do not disclose explicitly the access selector adapter translating access technology dependent information into QoS parameters; and obtaining access technology independent status information from the QoS parameters, wherein the access technology independent status information is a set of QoS related parameters relating to a traffic already existing in the corresponding radio access network, and the access technology independent information is a set of QoS related parameters defined as requirements associated with the application in the QoS profile.

However, Persson discloses an access manager and a translator in a gateway (i.e., access selection adapter) for translating messages and obtaining access status (see Persson, elements 911 and 913 in Fig. 9 and [0053]). Persson also discloses large variety of applications relating to traffic already existing in the system so that will create

a need for efficient utilization of bandwidth and easily determine the bandwidth requirement for the particular application (see Persson, Fig. 9 – 12, and [0026] - [0030]). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the Chan's system in view of Radhika in order to translate IP QoS parameters to UMTS QoS attributes or vice versa so that could easily determine the bandwidth requirement for the particular application, thereby resulting in efficient spectrum utilization, as suggested by Persson (see Persson, [0026]).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MONG-THUY TRAN whose telephone number is (571)270-3199. The examiner can normally be reached on M-F, 8:30 - 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, LEWIS WEST can be reached on (571)272-7859. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic

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Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Lewis G. West/
Supervisory Patent Examiner, Art Unit 2617

/MONG-THUY TRAN/
Examiner, Art Unit 2617